20. *Audit and Inspection.*—The accounts of 1,214 Societies were fully audited by the Inspectors and those of 119 Societies were audited by certified Auditors and Accountants. The Inspectors also inspected the accounts of 1,765 Societies. As pointed out above, however, it is not sufficient if the work of inspection is left entirely to the Inspectors. The higher Officers should also exercise a certain amount of check over the work of their subordinates.

21. In this connection, the Registrar makes a suggestion for the introduction of a systematic course of training for Inspectors. He is requested to submit definite proposals in the matter for the consideration of Government.

22. *General.*—Government are glad to learn that the Mysore Co-operative Propagandist Institute did some substantial work during the year and enlarged its sphere of activities. Under its auspices, the Fifteenth Mysore Provincial Co-operative Conference was held in October 1928 under the Presidency of Rajamantrapravina Mr. K. Matthan, Member of Council, and opened by Amin-ul-Mulk Sir Mirza M. Ismail, C.I.E., O.B.E., KT., Dewan of Mysore. In addition, several District and Taluk Conferences were also held during the year. The report indicates that the Department has enlisted and is receiving very cordial co-operation from other Development Departments and the growth of Agricultural co-operation is an instance of the valuable results of such team work. The Registrar makes grateful mention of the support and co-operation he has received from the public and this is a source of special gratification to Government as the appreciation of the people is not only a proof that the work is proceeding on right lines, but also holds out the promise of rapid progress in future.

23. Government also note with pleasure and interest that many Societies took part in civic and social activities by providing free reading rooms and allotting a portion of their profits for charitable and other beneficial purposes. This is, as it should be, since social amelioration goes hand in hand with co-operation and it is hoped that these measures of constructive work will receive more and more attention in future.

24. The work of the Department during the year under review was on the whole satisfactory and Government wish to convey their appreciation to Mr. K. H. Ramayya and his staff. Though the percentage of the population touched by the movement has risen from 8·9 to 9·9, there is much propaganda work yet to be done, particularly in parts of the Kolar and the Chitaldrug Districts where the benefits of the movement have yet to be properly appreciated. The thanks of Government are also due to the several officials and non-officials who have whole-heartedly co-operated with the Department.

N. RAMA RAO,
Secretary to Government,
Development Departments.

GENERAL SECRETARIAT.

Review on the Administration Report of the Forest Department.

READ—

Report on the Administration of the Forest Department for the year 1928-29, submitted by the Chief Conservator of Forests in Mysore, with his letter No. Pr. 36-29, dated the 21st October 1929.

ORDER NO. G. 11232-54—FT. 214-29-4, DATED 15TH MARCH 1930.

Recorded.

2. *Contents of Report.*—The Chief Conservator's attention is invited to the observations in the Government review on the previous year's report in regard to the reduction of the volume of annual reports. The size of the report is capable of further reduction on the lines indicated in the said review.

3. *Area of Forests.*—At the close of the year under report the area of State Forests was 3,380·36 square miles, of Plantations 60·06 square miles and of Reserved Lands, 369·49 square miles. Whether these areas are adequate for meeting the requirements of the State for articles which Forests alone can supply and what scope there is for afforestation of new areas which are not fit for cultivation or are not required for it and can therefore be brought under the control and operations of the Forest Department are problems of great importance which require early investigation.

4. *Reservation and Settlement.*—The number of blocks pending constitution as Reserved Lands and of those awaiting Settlement is large and the Reservation and Settlement operations should make quicker progress in the future. A separate report explaining the exact position in respect of these works and the arrangements made for their expeditious disposal may be submitted.

5. *Minor Forests.*—The constitution of Minor Forests has, so far, made appreciable progress only in one District, namely, Shimoga. As observed by the Chief Conservator, the work in this respect in the other Districts has yet to be taken up and he is requested to suggest measures necessary for giving, if possible, simultaneous attention to it in all Districts.

6. *Village Forests.*—The area of Village Forests at the close of the year was 94·89 square miles. The interest of the Panchayets in the formation, maintenance and improvement of these forests is still not as keen as might be desired. The place of these forests in village economy as sources of supply of fuel, fodder, leaf manure, small timber and minor forest products, will, there is no doubt, be appreciated more and more in course of time. The Forest Department has, however, to lead the way by forming some of them and showing the villages the advantages to be obtained by having their own forests. Only a small part of the grant allowed for subsidising the formation of these forests was used in the year and the Chief Conservator is requested to see that greater attention is paid in future by the officers of the Department to the constitution and development of Village Forests.

7. *Demarcation.*—There is only a small increase in the length of existing boundaries repaired as compared with the previous year. As regards the boundary lines newly demarcated, the work done in the year is less than half of that in last year. There are still about 600 miles of lines to be made and all the existing lines do not come in for repairs every year. The Chief Conservator is requested to consider the measures necessary for paying greater attention to this work.

8. *Forest Surveys.*—It is not clear from the report what is the total amount of Survey work to be done and if the programme drawn up for the year was fully carried out. Information on these points should invariably be furnished in future reports.

9. *Working Plans.*—It is reported that the exploitation operations in some of the forests are regulated by Provisional Working Schemes. What are all the forests for the working of which such schemes are now the guide and within what period it is proposed to replace them by Regular Working Plans, may be reported. The revision of the Working Plan for the Heggaddevankote group of forests was started in 1926-27 and it is necessary that the revised plan should be made ready without delay for regulating future exploitation work. The revision of the kind undertaken in respect of the Heggaddevankote Forests would be useful in the case of other equally important timber forests and the Chief Conservator is requested to consider the desirability of arranging for the early review and modification of the Working Plans of such forests.

10. *Buildings, Communications and other Works.*—The execution of these works should be regulated by well-considered programmes drawn up for at least a period of three years and the allotments allowed for the purpose should be utilised fully. The Chief Conservator's proposals for the provision of suitable accommodation to the Protective Staff stationed in out of the way places and unhealthy tracts, are awaited.

11. *Lumpsum Grazing Fees.*—It is reported that the recovery of these fees is not being promptly effected. The Chief Conservator is requested to submit a separate report on this subject stating what causes are responsible for the delay in realisation and how they can be remedied.

12. *Injury to Sandal Trees.*—The number of cases disposed of during the year was 203 against 183 in the previous year. The number pending at the close of the year is still as large as 386. It is necessary to bring these cases to early settlement and

the Forest Department should take all possible measures towards this end in consultation with the Revenue Department. Government regret to note that the Revenue Commissioner has not submitted the quarterly reports of progress in the disposal of these cases as required in the Government Order dated the 19th March 1929 and he is requested to arrange for their submission.

13. *Sandal Patrol.*—The work of the patrol party is reported to have been satisfactory. There is reason to believe that there is smuggling of sandalwood in some places and a Committee of which the Chief Conservator is the Chairman has been appointed to suggest measures for effectively preventing it and he is requested to arrange for the early submission of the Committee's report.

14. *Sandal Spike Disease and its Investigation.*—This disease is reported to have spread to new areas in the Districts of Bangalore and Tumkur. The causes of the disease still remain a mystery and the investigations for ascertaining them are in progress. The problem is now under study in four branches, *viz.*, Botanical, Chemical, Entomological and Mycological, and it is under contemplation to start early investigations on the Bio-Chemical side as well.

15. *Sandal Survey, Reservation and Working Plans.*—The sandal valuation survey has been going on for a long time and it is necessary to adopt measures for completing and closing it early. The exploitation of sandal should be based upon Regular Working Plans and prompt steps should be taken for drawing them up and basing operations upon them. The early submission of the proposals for Reservation of areas favourably situated for the growth of Sandal is awaited.

16. *Sandalwood.*—The quantity of Sandalwood supplied to the Sandal Oil Factories in the year was 2,360 tons against 2,090 tons in the previous year and the net receipt from the sale of sandal oil was Rs. 24,62,829 against Rs. 23,00,632 in 1927-28.

17. *Sandal Trees Committee.*—For the consideration of questions relating to sandal trees on occupied lands and on lands to be given out for cultivation, a Committee was appointed in June 1929 and its report is awaited.

18. *Lantana and other Pests.*—Government are glad to learn that the scheme of reclaiming areas overgrown with *lantana* sanctioned in the Tumkur District is gaining in popularity. All possible encouragement should be afforded to people desirous of bringing *lantana* overgrown lands under cultivation and the Chief Conservator of Forests is requested to arrange for the extension of this scheme to other Districts as well. Lantana, prickly-pear and touch-me-not are three pests which have done considerable harm to plant growth and they have practically prevented all natural re-generation in some of the forests and persistent attempts are necessary to solve the problem of eradicating them. As observed in the Government review on the previous year's Administration Report, it is unlikely that in view of the proportions of the problem, any real solution of it could be found unless some industrial use could be made of these plant pests. Any such use may not prove a paying proposition and may even involve some cost but considering the great gain to the forests by ridding them of these pests, any expenditure involved in the process of converting them to some use is worth incurring and the Chief Conservator is requested to arrange for continuous attention to the study of this problem.

19. *Capture of elephants in pits.*—Sixteen elephants were captured by this method in Mysore, of which five died, five were sold and six reserved for Departmental use.

20. *Game.*—Certain amendments to Game Laws were ordered to take effect from 1st July 1928. The killing of tigers being prohibited under the amended rules, representations were received from the Malnad Members of the Representative Assembly for a change in the rules. Orders were thereupon issued in March 1929 authorising the Chief Conservator to permit the shooting of tigers without licenses in localities where they were a source of danger to life or property. The revival of the system of offering rewards for the killing of tigers was also urged by the people of Malnad Districts and orders have since issued sanctioning the payment of rewards to local people who kill tigers in the specified areas thrown open for shooting them without licenses.

21. *Sylviculture.*—Government are glad to note that the scale of operations for improving the stocking and composition of forests has been considerably expanded. The conditions for the natural re-generation of teak, honne, beete and matti are reported to have been satisfactory in the year under report. The area brought under Regular Plantations of teak was 573 acres against 183 acres in the previous year and there were besides 153 acres of Takkal Plantations and also extensive broadcast-sowings of teak seeds. The results of teak plantation operations are stated to have been very good. A large amount of work was also done in raising plantations of species yielding other kinds of timber and fuel. The sandal-dibbling operations were also conducted on an extensive scale. The scope for development of sylvicultural work is very great and there are, as stated in the Report, a number of problems relating to the selection of suitable species, the ascertainment of the proper time for undertaking the several operations and the investigation of methods of planting for obtaining the best results, which required systematic study and research. The volume of sylvicultural work is capable of considerable expansion and the organisation for undertaking it on an increasing scale, should be gradually developed.

Gopalswami, Chamundi and Baba Budan Hills and the Irwin Canal.—The work of stocking with suitable species the forests on these hills which have, so far, been more or less bare, is reported to have made progress. It is stated that wattle which yields a tanning material is doing well on the Gopalswami Hills and Government are glad to learn that the Department proposes to raise extensive plantations of this valuable economic tree. The plantation work on the Bababudan Hills is still in the initial stage and it is necessary to carry on further experiments with a view to see what species will take kindly to this region. The raising of plantations of fuel and other trees near Hulikere and wherever possible along the Irwin Canal requires particular attention.

Fuel Reserves.—Adequate attention has not been paid for some time past in the Maidan parts of the State for raising plantations to meet domestic and industrial demands for firewood. The Chief Conservator accordingly submitted in the year under report his proposals for the better care of old plantations and for the formation of new plantations in the Districts of Bangalore, Kolar and Tumkur and these proposals were sanctioned. The problem of supply of fuel to meet all requirement is one of great importance and it requires increasing attention in the future on the part of the Department.

22. *Fodder*—The Department has arranged, as an experimental measure, for a few silo pits in places where scarcity of fodder is often felt. If the measure proves popular, it might be extended to other places where forests can supply large quantities of fodder of different kinds and where there is likely to be a demand for it. Government are glad to learn that experiments are being made with some exotic grasses of good fodder value with a view to see if they can be grown in the State Forests.

23. *Exploitation of timber.*—The quantities of timber cut in the forests brought to depots, and sold during the year were 8,44,650 cubic feet, 5,71,154 cubic feet, and 5,45,557 cubic feet respectively exclusive of railway sleepers, poles and sawn materials as against 9,73,401 cubic feet, 6,14,330 cubic feet, and 5,68,912 cubic feet, in the previous year. In addition, 1,10,145 railway sleepers were supplied to the State Railways and 6,944 balgi poles to the Electrical Department. The aggregate realisation from timber during the year was Rs. 12,68,262 as against Rs. 10,83,143 in the previous year.

It is not clear from the Report what were all the measures taken by the Department for holding stocks of timber with a view to offer them for sale after seasoning. The Chief Conservator is requested to report what part of the grant for timber operations was reserved for holding stocks, what measures were adopted for extra exploitation of timber for purposes of stocking and what quantities and kinds of timber were actually held in stocks at the close of the year and where.

24. *Financial results.*—Including Sandal Oil receipts, the aggregate revenue of the Department in the year under report was Rs. 46,27,201 against Rs. 43,38,361 in the previous year. The revenue from Sandalwood oil and timber, amounting to Rs. 24¾ lakhs and 13¾ lakhs respectively are the highest on record. The improvement under timber is due to supplies of a larger number of sleepers to the Mysore Railways and of balgi poles to the Electrical Department, and also to the better rates obtained at

the auction sales and that under Sandalwood Oil is the result of the greater demand for it.

The uncollected demand at the close of the year was about Rs. 7½ lakhs, as against Rs. 4 lakhs at the commencement and the bulk of the excess is accounted for by the kists of Minor Forest Produce of 1928-30 and of the Tangadi leases of 1929-31 which were not due during the year under review.

A sum of nearly a lakh of rupees is stated to have been due from Government Departments. There is no reason why there should be delay in the payment of these dues. All transactions between Government Departments should invariably be settled finally in the years to which they relate. The Chief Conservator is requested to give effect to this rule in consultation with the Heads of the Departments which have transactions with the Forest Department.

The expenditure on Conservancy and Works in the year was more than that of the previous year by about Rs. 3 lakhs and the excess is chiefly due to larger exploitation, developmental and cultural operations undertaken in the year under report.

25. *Recruitment to Higher Service.*—Four Probationers were entertained in the year under report and they are under training, three of them for appointment to the Upper Grade of Rangers, and one, to the gazetted service. A Diploma holder of the Imperial Forest College, Dehra Dun, was also employed on probation for appointment to the Gazetted cadre.

26. *Deputations.*—An Assistant Conservator was deputed to Europe, America and Philipine Islands for studying the methods of Forestry followed there and for collecting information of value to the Department in the development of forest industries and also for ascertaining the markets, if any there, for the products of the State Forests. Another Assistant Conservator was sent to Assam for a short period for studying the plywood plants there and the methods of manufacturing plywoods and veneers. The deputation of a Sub-Assistant Conservator to the Anamalai Hills for studying the methods of raising cinchona plantations, their management and the harvesting of the bark for making quinine was also sanctioned in the year under report.

27. *Health of Departmental Staff.*—Of 21 deaths reported in the year, nine are stated to have been due to malarial fever and eight to pneumonia. The health of the staff deputed for duty in unhealthy tracts requires particular care and the Chief Conservator has been separately addressed as regards the measures necessary for maintaining a better standard of health among the members of such staff.

28. *Touring and Inspection.*—The Chief Conservator reports that the itineration of the District Forest Officers of Bhadravati, Sagar, Shimoga and Kadur was not adequate and that the quality of the work done by them during their tours of inspection was not also up to the standard. The officers concerned should be warned against such slackness in inspection in future. The Chief Conservator is requested to review the orders of Government and the departmental instructions in regard to the touring of officers of different grades and take the steps necessary for enforcing the amount of touring and inspection work essential for the proper supervision of all Departmental operations and report the action taken for the information of Government.

29. *Creosote Plant and Supply of Treated Poles, Sleepers and Timbers.*—The Plant started work about the middle of August 1928 and Government are glad to note that its operation, which was satisfactory, resulted in a profit. Three thousand four hundred and twenty-eight Balgi poles were supplied by the Plant to the Electrical Department and 45,000 sleepers for Railway and Tramway tracks. Some small quantities of junglewood scantlings are also reported to have been creosoted and offered for sale to the public. Experiments in the antiseptic treatment of the different kinds of junglewoods available in the forests should be continued for providing cheep timber to help in the solution of the housing problem.

The Imperial Forest Research Institute, Dehra Dun, kindly deputed their Wood Preservation Technologist, Mr. S. Kamesam, B.E., M.E., A.M.I.E., to visit the Plant for advising the Department in regard to the best means of operating it and the processes to be employed in treating timbers and sleepers. The advice of Mr. Kamesam was very valuable and the thanks of the Government are due to him as well as to the Institute.

30. *Fuel Supply to the Iron Works.*—The quantity of fuel collected in the year under report for supply to the Iron Works was 1,18,027 tons against 1,34,042 tons in the previous year. The enlargement of the furnace has increased the demand of the Works for fuel and the question of the ways and means for making the larger supplies required available is under consideration.

31. *Lac Industry.*—During the year 851 Mds. of Crude lac were collected against 801 Mds. in the previous year. The operations of the Lac Factory are reported to have been satisfactory and it realised a revenue of Rs. 13,175 from the disposal of its products, the chief of which are washed lac, lac dust, polish and sealing wax. It is stated that the manufacturing of some other products is under examination. The lac work both under cultivation and utilisation requires further investigation and Government trust that the Lac Committee will arrange to study all the measures calculated to expand this industry.

32. *Exploitation of Timber in Ghat Forests.*—Until recently there was practically no exploitation in these forests. A beginning, however, has now been made in their working by using Balgi trees as electrical transmission poles and one or two species growing there for conversion into railway sleepers after antiseptic treatment. The Utilisation of the other species of timber-value available in these forests requires systematic investigation and Government are glad to note that the Chief Conservator is taking action in this direction.

33. *Rafting of Timber.*—It is reported that this method of transport of timber is being tried on the Kabani river. This means of conveyance is less expensive than transport by common carts and the possibilities of employing it should be fully explored.

34. *Forest Objection Book Advances.*—The balance awaiting adjustment at the close of the year was Rs. 30,685 against Rs. 18,198 at the commencement. Prompt clearance of advances is necessary and the Chief Conservator is requested to effect early a substancial reduction in the outstandings.

35. *Accounts and Internal Audit.*—It is stated that the Accounts Assistant of the Chief Conservator examined the accounts of 27 offices in the year under report against 22 in the previous year. It is necessary that the accounts of all the important offices of the Department should come under Examination at least once a year and the Chief Conservator is requested to draw up annual programmes so as to achieve this object. The scriptory work relating to accounts in some of the offices is stated to be unnecessarily heavy and the means of reducing it requires early attention.

36. *Forest Industries.*—A very interesting feature of the Report under review is the attempt made, for the first time, to give an account of the industries, dependent for their supplies of raw materials, on forests and of the employment which the operations of the Department and of the industries based upon the materials drawn from forests, afford to the people. As observed by the Chief Conservator the information available on this important subject is somewhat meagre as no systematic attempts have, so far, been made to collect the relevant statistics. The particulars which it has been possible to gather and incorporate in the present Report are, however, sufficient to indicate the very important part which the forests play in supplying the needs of the people and in providing them with employment. The study of forests in relation to the industries with which they are associated of which a brief account is given in the Report has already pointed the need for giving attention to a number of problems. The Report states that there is now no reliable information in regard to the total quantities and kinds of timbers consumed in the State, the purposes for which they are used and the sources from which they are drawn. The Chief Conservator finds from a study of agricultural statistics that a very large quantity of timber is used in the cart-making industry in the State, but it is not known how and wherefrom it is obtained. He calculates that the total consumption of fuel in the State is unlikely to be less than six million tons, but the quantity of firewood which is extracted from forests and which pays revenue to the Department, is only a small fraction of the total quantity. A part of the demand for timber and for some other products is being met by imports into the State and this position indicates the possibilities open for the exploitation of some of the more distant forests with a view to meet a much larger part of the local requirements of these articles. The departmental operations of exploitation of timbers, of sandalwood and of firewood afford employment to a large number of contractors and labourers. The distillation of sandalwood in the Factories at Mysore and Bangalore

and of firewood at Bhadravathi employ both skilled and unskilled labour. Cottage or small scale industries like the manufacturing of furniture, of country carts and the making of articles from bamboos and canes afford the means of livelihood to a large number of people. The Department has taken up the investigation of some forest products likely to prove of economic value and among these may be mentioned oil from Dhuma trees and from Yennemara, oil from sandalseed, fat from Dhupa fruit, silk cotton, tussore silk and pulp from bamboos. There are a number of problems relating to forest industries which are already in existence or which are capable of being developed and Government are glad to learn that the Chief Conservator is arranging for the collection of information and statistics bearing upon them and for their investigation on the technical and economic sides.

37. *General.*—The Chief Conservator of Forests has steadily kept in view the general lines of forest policy approved by Government last year and has taken practical action in several directions to give effect to it. The activities of the Department included in the year under report, development work on a much larger scale than before, and several important problems relating to exploitation, transportation and commercial uses of forest products have been taken up for study and investigation. The work of the Department during the year was satisfactory and Government are glad to note the good work of officers specially mentioned by the Chief Conservator. The very satisfactory work of the Department in regard to the exploitation of sandalwood mostly of small sizes—worth over nine lakhs of rupees in the remote parts of the forests in the Kankanhalli Taluk deserves special mention.

R. RANGA RAO,
General Secretary to Government.

Reviews the report on the Administration of the Public Works Department for the year 1928-29.

READ—

Report on the administration of the Public Works Department for the year 1928-29, received with the Chief Engineer's letter No. 5812, dated 9th November 1929.

ORDER NO. G. 10945-50—G. M. 90-29-4, DATED 10TH MARCH 1930.

Recorded.

2. Rajasevasakta J. Bhore continued to control the operations of the Department during the year under report as Chief Engineer.

3. *Grant and outlay.*—The final grant for the year under all heads was Rs. 65,94,547 against Rs. 57,28,484 in the previous year; and the outlay incurred Rs. 62,71,630 against Rs. 56,68,498 in 1927-28. Including the outlay of Rs. 3,26,657 from sources such as contributions, etc., the total expenditure of the Department amounted to Rs. 65,98,287 against Rs. 60,22,330 in the preceding year. The aggregate actual State grant was Rs. 41,81,451 and the recorded outlay Rs. 37,74,578 showing a net lapse of Rs. 4,06,873. The most noticeable lapses are under Civil Works and Public Improvements, amounting to over one lakh of rupees in the former case and over Rs. 1½ lakhs in the latter. It is explained that the major portion of the lapse under civil works was in the Mysore Special and Mysore Divisions, due to the late receipt of bills for works on the New Guests' Mansion (Lalita Mahal) and the late settlement of tenders for the Operation Theatre of the Vani Vilas Hospital and the extension of the Branch Press at Mysore. The lapse under Public Improvements is mainly due to the final bills of certain contractors not being adjusted before the end of the year.

4. *Irrigation Works charged to Revenue.*—The total expenditure incurred under this head was Rs. 9,05,823 against Rs. 8,16,737 during the previous year. Of this, Rs. 4,78,849 was spent on major tanks, Rs. 2,56,154 on channels and Rs. 1,70,820 on minor tanks. Government are glad to note that the improvement of expenditure on tanks noticed in the last year's review has been maintained during the present year also.